

Constraints of Regular Practice of Physical and Sporting Activity in the City of Ouagadougou

Ilboudo Salfo¹, Nana Brigitte², Rouamba Delphine³, Ouattara Daouda⁴, Pr. Songnaba Florent⁵

¹ Faculty, Institute of Sports Sciences and Human Development (ISSDH)/ Joseph Ki-Zerbo University. Burkina Faso, Email: asalfoilbou@yahoo.fr, ORCID: 0000-0002-2322-0829

² Faculty, Institute of Sports Sciences and Human Development (ISSDH)/ Joseph Ki-Zerbo University. Burkina Faso, Email: brigitte.nana@ujkz.bf, ORCID: 0000-0002-2163-9001

³ Faculty, Institute of Sports Sciences and Human Development (ISSDH)/ Joseph Ki-Zerbo University. Burkina Faso, Email: delphine.rouamba@yahoo.fr

⁴ Faculty, Institute of Sports Sciences and Human Development (ISSDH)/ Joseph Ki-Zerbo University. Burkina Faso, Email: delphine.rouamba@yahoo.fr

⁵ Faculty, Management Science / Thomas Sankara University, Ouagadougou, Burkina Faso

Abstract

Introduction: The dietary lifestyle of populations associated with physical inactivity has led to the emergence of non-communicable diseases today. In order to reduce the progression of these diseases, in 2010 the WHO recommended the regular practice of physical and sporting activity by giving recommendations on the frequency of practice. Populations, aware of the benefits of physical and sporting activity, have engaged in the practice. However, the regularity of this practice remains a problem in the African context in general, and that of Burkina Faso in particular. **Objective:** The main objective of this article is to identify the constraints linked to the regular practice of physical and sporting activity in the city of Ouagadougou. **Methodology** to achieve this objective, we developed a questionnaire and administered it to 320 APS practitioners using the non-probabilistic method and the reasoned choice technique. **Results:** The results showed that this regular practice encounters constraints in the city of Ouagadougou, the main ones being the lack of time the great distance between homes and the lack of sports infrastructure. **Conclusion:** The political authorities are then called upon to be part of the dynamic of efficient territorial planning in multi-sport sports facilities, to promote a local practice of APS within the Burkinabè population.

Keywords: Constraints, Regular practice, Physical and Sporting Activity, Ouagadougou

INTRODUCTION

Every year, around 15 million people aged 30 to 69 die from non-communicable diseases and more than 80% of these deaths come from low and middle economic resources countries (Aouiche, 2018). To reduce the increase in these chronic diseases, in 2010 the WHO adopted recommendations concerning the practice of physical and sporting activities in order to curb the progression of these pathologies (Nocon et al., 2008). Indeed, the WHO defines physical activity as « a set of body movements produced by striated muscles that lead to a significant increase in energy expenditure » (WHO, 2021). Practicing physical activities can be done in different ways, namely walking, cycling, sports and active leisure activities (such as dancing, yoga, tai chi). The WHO recommendations for physical activity are: at least 150 minutes per week including at least 3 sessions of Physical and Sporting Activities (PSA) per week. Numbers from 2016 show that more than a quarter ($\frac{1}{4}$) of adults worldwide do not achieve the recommended level of physical and sporting activities (women being less active than men), with large disparities between countries.

Thus, the non-regularity of the practice of PSA can be explained by often objective constraints. Many descriptive studies have been carried out for this purpose. Lack of time appears to be the barrier to regular physical activity most frequently mentioned in numerous studies (Lovell, El Ansari, & Parker, 2010; Gill et al., 2008).

According to Brawley et al. (1998), difficulty accessing sports facilities can inhibit the desire to be physically active. Sechrist et al. (1987) also add to geographical accessibility the problem of hours of PSA practice compatible with professional occupations. Indeed, it is possible that the time slots offered to participants to practice physical activities are not compatible with their working hours. In addition to these studies, there are other more recent studies such as that of Muller and Van de Walle (2017) which highlights that having a favorable environment, facilities, or the possibility of enrolling in the discipline of your choice nearby contributes greatly to regular PSA practice.

Also, according to the results of a Canadian study, more than a third ($\frac{1}{3}$) of the populations affirmed that the costs of participating in physical or sporting activities were an obstacle to participation (Cameron et al., 2005). These authors even specify that the resources to support these activities (registration fees, transportation to the place of practice, etc.) are the most important determinant of whether or not to maintain an active lifestyle.

Furthermore, the feeling of personal efficacy has been cited as one of the most reliable predictors of physical activity practice (Bourdeaudhuij et al., 2002). Developing positive self-perceptions can be a factor of influence on the practice of physical activity. This author states that in physical education, this means that practice generates positive perceptions of one's own skills towards a type of activity and of its physical value with regard to a specific dimension." (Lemoyne and Vallois, 2014). However, this dimension is affected by the support of the social environment in the practice of physical activity (Hedstrom and Gould, 2004). Numerous studies have demonstrated a significant association between physical activity and support offered by loved ones. Thus, direct support (such as doing a physical activity with family or friends) and indirect support (encouragement or promotion of sports practice) have been identified as factors influencing the practice of APS (Sallis et al., 1987). Another research carried out on 4,152 people also demonstrates that social support is correlated with the practice of physical activities in both men and women. For men, it is even the most important factor ahead of the level of education. For women, support from loved ones comes just after education (Dowda et al., 2003).

In addition, the register of fatigue, lack of energy and physical exhaustion are also reported as "frequently" mentioned in several studies (Jonsson and Lidén, 2012). Stress and perceived lack of abilities are also among the frequently mentioned obstacles (Gyurcsik et al., 2006). However, some results would indicate that aspects linked to a lack of self-esteem or skills, as well as aspects linked to health such as long-term illness, disability, injury, or fear of injury are limiting factors in more than 25% of people (Lockett et al., 2005).

In Africa, the work of Bouchet, P. & Kaach, M. (2004) suggests an under-equipment in sports infrastructure in general in French-speaking African countries. In Morocco, for example, there are only 4,424 sports facilities. This gives a ratio of 1,152 m² per inhabitant compared to 8.5 m² in France with a total of 40,160 sports units and 9.25 m² per inhabitant in Germany. Another indicator comes from the study by Andreff (2001) which highlights an under-equipment of the 16 least developed countries including Senegal, Benin and Congo.

In Burkina Faso, with the advent of the revolution of August 1983, it was made compulsory to practice physical activities through "mass sport" officially launched by a slogan on September 24, 1984, under the National Council of the Revolution (CNR) led by President Thomas Sankara. The regime in place invited the Burkinabè people to

practice mass sport every Thursday and even Monday evenings from 5 p.m. local time. The idea developed behind this mass practice was to make the population healthy in order to better serve the revolution and, in turn, the nation (Zongo, 2015). This is how from 1984 to 1986 disciplines such as volleyball and football were widely practiced. The entire government and the president set an example through their diligence in practice. This period was marked by honorary distinctions at the continental and global level, with regard to the initiatives undertaken for the development of grassroots sport. We can cite, among others, the Nelson Mandela Trophy awarded to Burkina Faso in 1986 by the African Union for Sport for All and also the organization of the imposing popular cross-country race of the “sport AID” Day broadcast on mondovision (Coulibaly, 2019).

However, after the compulsory nature of the practice was lifted, the practice of sport for all was gradually abandoned by several practitioners, then finally fell into a state of total lethargy. It was only in 2006 that it experienced renewed activity with the creation of the Directorate of Sport for All at the ministry in charge of sports. Also, the official relaunch of sport for all activities on March 22, 2012, sparked greater interest in its practice by the population (Bombiri, 2018).

Despite this resurgence in the practice of sport for all, especially in large cities like Ouagadougou, it is clear that there are enormous difficulties which hinder regularity in practice. This study is therefore intended to determine the constraints linked to the regular practice of physical and sporting activity in the city of Ouagadougou.

1- METHODS

The present study seeks to study the constraints linked to the regular practice of physical and sporting activity. Carried out in Burkina Faso, more precisely in the city of Ouagadougou, this study was carried out among people aged at least 25 and practicing the sport for all.

Sampling was carried out using the non-probability method and the accidental technique. Thus, 320 practitioners were interviewed. The survey was used as the data collection technique and the questionnaire as the data collection instrument. The data collected was processed with “Sphinx plus2” software. The results were presented in tabular form. The chiz test was used to determine the relationship between variables. The level of significance of the tests was set at $p \leq 0.05$.

2- RESULTS

1. Frequency of PSA practice

Table 1: Frequency of PSA practice

Frequency of PA practice	Percentage
Irregular (less than 3 times/week)	61%
Regular (at least 3 times/week)	39%
TOTAL	100%

PA: Physical Activities

In Table 1, we see that among 320 people subjected to the study, 61% (n=195) have an irregular practice (less than 3 times a week) compared to 39% (n=125) who are regular in their practice (at least 3 times a week).

2. Constraints hindering the practice of APS among respondents

Table 2: The different constraints hindering the practice of APS among the respondents.

N°	Variables	Modalities	Percentage
1	Professional occupation	Yes	48,20%
		No	51,80%
2	Social and family environment constraints	Yes	30,30%
		No	69,70%
3	Distance constraint	Yes	61,00%
		No	39,00%
4	Constraint-hour	Yes	26,10%
		No	73,90%
5	Constraint of lack of time	Yes	61,50%
		No	38,50%
6	Constraint on means of travel	Yes	9,20%
		No	90,80%
7	Quality of infrastructure	Yes	40%
		No	60%
8	Cost constraint	Yes	12,80%
		No	87,20%

In Table 2, we see that 90.8% of respondents reveal that the means of travel do not cause an obstacle to the regular practice of APS. On the other hand, 61.5% of practitioners

who took part in the study told us that lack of time constitutes a barrier to regular practice compared to 38.5% who stated the opposite. 69.7% of respondents say that their social and family environment does not constitute any obstacle to regular physical activity compared to 30.3% saying the opposite. Furthermore, 87.2% of them reveal that the cost of the practice does not prevent them from practicing PA regularly compared to 12.8% who say that it prevents them.

3. Relationship between regularity in practice and constraints

Table 3: Relationship between regularity in practice and constraints

Regularity of practice		
N ^o	Practice constraints	P value
1	Distance	0,033*
2	Lack of time	0,001*

*= Significant at the threshold of $p < 0.05$

Looking at Table 3 on the significance test on the potential constraints to the regular practice of APS, two constraints were most commonly cited by the practitioners, namely the lack of time and the distance between home and the place of practice.

3- DISCUSSION

The objective of this study was to identify the constraints linked to the practice of sports for all in the city of Ouagadagou. When analyzing the results, it emerged that 61% of the APS practitioners interviewed are not regular in the practice of APS. According to WHO recommendations (2010), the benefits of practicing APS can only be felt if the practitioner is regular (three times a week for 45 minutes to 1 hour 30 minutes per session). From this point of view, it appears that the benefits sought by the practice would not be achieved among these practitioners. They will therefore end up giving up or citing constraints to justify their behavior. Thus, the analysis of the results revealed two major constraints: lack of time and the distance between home and the APS sports infrastructure, which prevent practitioners from being regular.

Regarding the lack of time, 61.5% of practitioners testify that the lack of time constitutes a constraint on the regular practice of physical and sporting activity. This could be explained by a heavy workload among certain practitioners preventing them from practicing APS regularly despite their expressed desire. These results are similar to those

of Brownson et al. (2001) who reported in the American context that: “having enough work in the service is one of the reasons most cited in a sample of adults as a barrier to regular physical and sporting activity ». Other authors have also reported that lack of time appears to be the barrier to the regular practice of physical and sporting activity most frequently mentioned in numerous studies (Lovell et al. 2010).

However, this constraint should only be qualified according to certain authors because for them the lack of time is rather an excuse given by practitioners for not being regular (Sallis and Owen, 1999). These authors argue that, on the contrary, some practitioners engage in passive leisure activities such as watching TV, spending time with friends, etc. instead of active leisure activities. It is therefore the use of time that would be at stake. To illustrate this fact, Edginton et al. (1995) point out that time spent watching television is by far the main leisure activity in the United States and that people who say they lack time for regular physical and sporting activity are often heavy consumers of the small screen. This therefore means that lack of time cannot justify non-regularity in the practice of health APS.

Furthermore, with regard to the distance between home and the place of practice, it appears that 61% of practitioners who took part in the study affirm that this constitutes a constraint on the regular practice of APS in the city of Ouagadougou. This constraint linked to the practice of APS which emerged significantly associated with regularity highlights the lack of adequate local infrastructure in the city of Ouagadougou. Indeed, the distance from sports infrastructures to practitioners prevents them from engaging in regular physical and sporting activity. The resulting explanation comes from the fact that the city of Ouagadougou has expanded and the city center where the sports infrastructures are located has become a residential area and administrative blocks; homes are located very far from these neighbourhoods. This means that practitioners do not live in the neighbourhoods where the infrastructures are located. This idea raises the problem of urbanization plans in African capitals which undermine the way of life of city dwellers. This point of view is like those of Giles-Corti et al. (2005) in Australia who highlighted that while individuals can make personal choices about active lifestyles that influence their physical and mental health, they are greatly conditioned by the environments in which they live. Also, Frank et al. (2007) add that the distance from infrastructure is one of the factors influencing the level of physical activity to consider. In addition, other authors have mentioned that the distance of sports infrastructures from the places of residence of APS practitioners seems to have a negative impact on the regular practice of physical and sporting activities (Popkin et al., 2005).

Overall, from the analysis of the results of this study, the lack of time and the distance between infrastructures and residential areas appeared significantly associated with the non-regularity of APS practitioners in the city of Ouagadougou. This is explained by the fact that these two constraints are the main reasons given by APS practitioners in the city of Ouagadougou even if in the literature, other constraints appear such as practice schedules and the cost of the practice. In Burkina Faso, working hours are set at 3:30 p.m. and 4 p.m., which gives practitioners time to leave the services and go to the practice locations. In addition, supervision in the practice of sport for all organized by the Ministry in charge of sport is not chargeable. These factors which are constraints in certain countries as highlighted by certain authors (Cameron et al., 2005). (Perreault et al., 2005). Nahas et al. (2003) were developed by the State to generate more enthusiasm and regularity in the practice. Even if provisions have been made for a relaunch of the practice of APS among the Burkinabè population, it is clear that they are still doubtful about complete and regular adherence to the practice of APS. From the restrictive practice of 1984 imposed by the State to the practice of choice advocated today, the population of the city of Ouagadougou is unaware of the danger linked to chronic diseases which threaten their sedentary way of life. If elsewhere, practitioners pay for their supervision, in Burkina Faso all these services are offered. Even if the constraints of workload and proximity to infrastructure are mentioned, in the last resort, it is up to each citizen to make the right choice as for its way of life and for the State to review the installation of its infrastructures in relation to the residential areas of its fellow citizens.

CONCLUSION

A sedentary lifestyle has gradually become integrated into the daily life of the entire population due to the predominant role of new technological tools and the internet. This phenomenon associated with new dietary lifestyles of populations has led to the emergence of non-communicable diseases. Aware of the possible consequences of these diseases, the World Health Organization (WHO) recommended in 2010, for all nations, the regular practice of Physical and Sporting Activity (PSA) by giving recommendations concerning the frequency of APS practice. The general objective of this study was to study the constraints of the regular practice of physical and sporting activities in the city of Ouagadougou. To do this, a questionnaire was developed and administered to 320 practitioners of physical and sporting activity in the city of Ouagadougou.

The results of the study revealed that the regular practice of APS is linked to two constraints, namely the lack of time and the distance between home and the place of practice.

These results obtained can serve as a basis for carrying out investigations in terms of leverage to be activated for the promotion of a local APS practice with efficient territorial planning into multi-sport sports facilities.

References

- Andreff, W. (2001). French-speaking research in sports economics. *L'Harmattan, Paris*, 115-122
- Aouiche, S. (2018). Training of nurses in therapeutic education of diabetic patients for the prevention of diabetic foot lesions. (Memory). University of Geneva.
- Bombiri, AM. (2018): Strategies for developing sport for all in Burkina Faso. Executive master's thesis in management of sports organizations. Catholic University of Louvain, Belgium.
- Bouchet, P. & Kaach, M. (2004). Does a "sports model" exist in French-speaking African countries? *Staps*, (65) 3, 7-26. <https://doi.org/10.3917/sta.065.0007>.
- Bourdeaudhuij, I. D., Sallis, J., & Vandelanotte, C. (2002). Tracking and explanation of physical activity in young adults over a 7-year period. *Research Quarterly for exercise and Sport*, 73(4), 376-385.
- Brawley, L.R., Martin, K.A., & Gyurcsik, N.C. (1998). Problems in assessing perceived barriers to exercise: Confusing obstacles with attributions and excuses. *Advances in sport and exercise psychology measurement*, 337-350.
- Brownson, R.C. et al. (2001). Environmental and policy determinants of physical activity in the United States. *American Journal of Public Health*. 91(12), 1995-2003.
- Cameron, C., Craig, CL., Bull, F.C. and Bauman, A. (2007). Physical activity guidelines in Canada. *Nutrition and Metabolism*, 32, S179-88.
- Coulibaly, B. (2019). Tradition and modernity in physical, sporting and artistic activities in Burkina Faso: social change and issues of global development. (Doctoral thesis). University of Abomey-Calavi.
- CREDOC, (1994). Practicing physical or sporting activity: persistence of inequalities. *Feminist Research*, 17(1), 39-76.
- Dowda, M., Trost, SG., Sallis, JF., Pate, RR., Freedson, PS. and Taylor, W.C. (2003). Evaluation of a model of parental influence on young people's physical activity. *American Journal of Preventive Medicine*, 25(4), 277-282.
- Edginton, C. R., Jordan, D. J., DeGraaf, D. G., & Edginton, S. R. (1995). Leisure and life satisfaction: foundational perspectives.
- Giles-Corti B. et al (2005). "Increasing walking: how important is distance to,

- attractiveness, and size of public open space? », *American Journal of Preventive Medicine*, 2(28), 169-176.
- Gyurcsik, N.C., Spink, K.S., Bray, S.R., Chad, K., & Kwan, M. (2006). An ecologically based examination of barriers to physical activity in students from grade seven through first-year university. *Journal of Adolescent Health*, 38(6), 704-711.
- Hedstrom, R and Gould, D. (2004). *Research in youth sports: Critical issues status*. Michigan State University: Institute for the study of youth sports.
- physical activity - a study of physical activity behaviors of university students. Doctoral dissertation, 74 (2), 342-352.
- Muller L. and Van de Walle I., (2017). The supply of sports equipment and the obstacles to sports practice in sensitive urban areas. Ministry of the City, Youth and Sports, Crédoc, IRDS.
- Nahas, M. V., Goldfine, B., & Collins, M. A. (2003). Determinants of physical activity in adolescents and young adults: The basis for high school and college physical education to promote active lifestyles. *Physical Educator*, 60(1), 42.
- Nocon M et al., (2008). Association of physical activity with all-cause and cardiovascular mortality: a systematic review and meta-analysis. *European Journal of Cardiovascular Prevention & Rehabilitation*, 15:239-46.
- WHO. (2021). WHO guidelines on physical activity and sedentary lifestyle. <https://apps.who.int/iris/bitstream/handle/10665/349728/9789240032118-eng.pdf?sequence=1&isAllowed=y>
- Lemoyne, J., & Valois, P. (2014). Predictors of physical activity among college students. *Canadian Journal of Behavioral Science/Revue canadienne des sciences du comportement*, 46(2), 262.
- Lockett, D., Willis, A. and Edwards, N. (2005). Through the eyes of seniors: an exploratory qualitative study to identify environmental barriers and facilitators of walking. *Archives of the Canadian Journal of Nursing Research*, 48-65.
- Lovell, JF., Liu, TW., Chen, J. and Zheng, G. (2010). Activatable photosensitizers for imaging and therapy. *Chemical Reviews*, 110(5), 2839-2857.
- Pelletier, LG., Brière, NM., Vallerand, RJ. & Blais, MR. (1995). Development and Validation of a Measure of Intrinsic, Extrinsic Motivation and Amotivation in a Sports Context: The Sports Motivation Scale (SMS). *International Journal of Sport Psychology*.
- Perrault, L. P., El-Hamamsy, I., Dumont, E., Malo, O., & Carrier, M. (2005). Effects of physical activity and sport on porcine coronary endothelial function. *The Journal of heart and lung transplantation*, 24(7), 912-920.
- Popkin B. M. et al., (2005) "Environmental influences on food choice, physical activity and energy balance". *Physiology & Behavior*, 8(6) 603-613.

- Sallis, J.F., Ffrench, M.L., & Owen, N. (1999). Health promotion research and the diffusion and institutionalization of interventions. *Health education research*, 14(1), 121-130.
- Sallis, JF, Grossman, RM, Pinski, RB, Patterson, TL, & Nader, PR (1987). The development of scales to measure social support for eating and exercise-related behaviors. *Preventive Medicine*, 16 (6), 825-836.
- Sechrist, K. R., Walker, S. N., & Pender, N. J. (1987). Development and psychometric evaluation of the exercise benefits/barriers scale. *Research in nursing & health*, 10(6), 357-365.
- Zongo, C. (2015). *The history of sport in Burkina Faso*. Sankofa and Gurli editions.